



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/533,856

05/05/2005

Uwe Klippert

54590/DBP/M521

7895

23363 7590 01/08/2008
CHRISTIE, PARKER & HALE, LLP
PO BOX 7068
PASADENA, CA 91109-7068

EXAMINER

MOK, ALEX W

ART UNIT

PAPER NUMBER

2834

MAIL DATE

DELIVERY MODE

01/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

917

Office Action Summary	Application No.	Applicant(s)	
	10/533,856	KLIPPERT, UWE	
	Examiner	Art Unit	
	Alex W. Mok	2834	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Amendment

1. Acknowledgement is made of Amendment filed 10/8/07.

Claim Objections

2. Claim 5 is objected to because of the following informalities: claim 5 is listed as withdrawn in the Amendments to the Claims, while in the Remarks/Arguments it is treated as pending. For the purpose of examination, claim 5 will be considered as pending in the present application. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9, 11, 14, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al. (US Patent No.: 4007390), and further in view of Sesselmann et al. (PCT Publication No.: WO 120753 A1), and Blanchard et al. (US Patent No.: 4866321).

For claim 1, Muller et al. teach a drive device for adjusting devices in motor vehicles, comprising an axial field motor comprising a motor shaft (figure 3), a housing (reference numeral 73) and a support element (reference numeral 68), the housing

comprising a plurality of recesses and the support element comprising a plurality of radial webs, which are inherently formed when two or more coils (reference numerals 69, 70) are on the plate, having positive locking elements (reference numerals 76, 77) located on the radial webs, and wherein the motor shaft is mounted rotatably to the housing of the axial field motor via the support element (figure 3), the positive locking elements of the radial webs extending from the radial webs towards the housing and engaging in the recesses of the housing, such that radial forces stemming from the motor shaft are introduced into said housing (figure 3). Muller et al. do not teach the radial webs being spaced apart at the outer circumference of the support element, nor the gear mechanism which is connected to the motor shaft and with a drive element of the adjusting device.

Sesselmann et al. teaches a drive for adjustment devices having a gear mechanism connected to the shaft (reference numeral 10, see figure 1b) and having a drive element (reference numeral 4, see figure 4), while Blanchard et al. teach radial webs being spaced apart at an outer circumference (see figure 2, reference numeral 40).

It would have been obvious to include the gear mechanism connected to the motor shaft and a drive element of the adjusting device and also the radial webs being spaced apart at the outer circumference in the invention of Muller et al., since Sesselmann et al. uses this technique for a drive for adjusting devices in motor vehicles (see the Abstract), the same technological field as the claimed invention, and a person

of ordinary skill at the time the invention was made could use the technique of Blanchard et al. for the purpose of providing space for the insertion of the coils.

. For claim 2, the illustration of figure 3 in Muller et al. shows the plate (i.e. support element) supported on the periphery of the axial field motor, which constitutes the radial webs being supported on the periphery of the motor.

For claim 3, the inventions of Muller et al. and Sesselmann et al. disclose the claimed invention except for the positive locking elements comprising radially directed end ribs extending from the radial webs and engaging in the recesses of the housing. It would have been obvious to have this configuration, since Blanchard et al. disclose bolts/screws (reference numerals 36, 38) that are fastened at the ends of the stator assembly (see figure 5), in which the bolts can constitute the radially directed end ribs, and a person of ordinary skill could have used this technique in combination with the positive locking elements of Muller et al. for engaging in the recesses of the housing.

For claim 4, when the bolts/screws disclosed in the invention of Blanchard et al. are used in the locking elements of the invention of Muller et al., these bolts (i.e. end ribs) would be connected with the housing in the axial direction, therefore it would have been obvious for the ribs to be connected in the axial direction with the housing, since the bolts would make contact with the housing of Muller et al. in the axial direction.

For claim 5, the invention of Muller et al. has axially extending locking regions that connect with the housing as explained for claim 1 above, which makes it inherent that the positive locking regions of the radial webs (formed on the plate of Muller et al.) would engage in the recesses of the housing.

For claim 6, the radial webs are formed on the plate (i.e. support element) of Muller et al. and also illustrates in figure 3 that the shaft is being held by the support element, therefore Muller et al. discloses the radial webs protruding radially from the radial webs of the support element holding the motor shaft.

For claim 7, Muller et al. illustrates in figure 3 a bearing bush (reference numeral 58) holding the motor shaft and integrated in the center (i.e. base body) of the support element.

For claim 8, Muller et al. already illustrates the bearing bush being a part of the base body of the support element (see figure 3, and explanation for claim 7 above).

For claim 9, Muller et al. illustrates in figure 3 the bearing bush disposed in the central opening of the base body of the support element.

For claim 11, the plate referenced by numeral 68 (i.e. support element) in Muller et al. is a part of the stator of the motor as illustrated in figure 3.

For claim 14, Sesselmann et al. teaches a motor shaft (reference numeral 10, see figure 1b) connected to a pinion (reference numeral 26) designed as a spur wheel gear, so it would have been obvious to include this configuration in the invention of Muller et al. for the same reasons given for claim 1 above.

For claim 18, the references of Muller et al., Sesselmann et al., and Blanchard et al. teach the drive element, the drive device comprising an axial field motor comprising a motor shaft, a housing and a support element, the housing comprising a plurality of recesses and the support element comprising a plurality of radial webs having radially directed end ribs located on outer ends of the radial webs, wherein the radial webs are

spaced apart at the outer circumference of the support element, and a gear mechanism which is connected to the motor shaft and with the drive element of the adjusting device, wherein the motor shaft is mounted rotatably to the housing of the axial field motor via the support element, the radially directed end ribs of the radial webs engaging in the recesses of the housing, such that radial forces stemming from the motor shaft are introduced into said housing as explained for claim 1 above. Therefore it would have been obvious to have an adjusting device in motor vehicles having the components mentioned above, since Muller et al., Sesselmann et al., and Blanchard et al. disclose these elements, and a person of ordinary skill in the art would be able to construct an adjusting device using the components of Muller et al., Sesselmann et al., and Blanchard et al.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al., Sesselmann et al., and Blanchard et al. as applied to claim 9 above, and further in view of Watanabe et al. (US Patent No.: 5357272).

For claim 10, the references of Muller et al., Sesselmann et al., and Blanchard et al. teach the claimed invention except for the free standing outer collar of the bearing bush adjoining an end face of the support element. It would have been obvious to include a collar, such as a protrusion on the bearing, to adjoin the bearing onto the support element, since it is within the knowledge of a person having ordinary skill in the art to make a protrusion on the bearing for the purposes of fixing the bearing inside the

support element, such as the protrusion shown on the bearing of the invention of Watanabe et al. referenced by numeral 17 on figure 2.

6. Claims 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al., Sesselmann et al., and Blanchard et al. as applied to claim 6 above, and further in view of Murakami et al. (US Patent Application Pub. No.: US 2001/0040067 A1).

For claim 12, the references of Muller et al., Sesselmann et al., and Blanchard et al. teach the claimed invention except for the ring being elastic at least in the axial direction being mounted between the radially directed end ribs of the radial webs of the support element and the housing. It would have been obvious to a person of ordinary skill in the art to resolve the tolerances of the mounting between the support element and the two-part housing by using the technique of mounting an elastic ring in between the support element and the housing, since this technique of using elastic rings is known in the art, as demonstrated in the invention of Murakami et al. (reference numeral 17, figure 15).

For claim 16, Muller et al. discloses a two shell housing, and with the elastic ring similar to that used by Murakami et al. and the end ribs used by Blanchard et al., it would have been obvious to have a twin shell housing whose one housing shell is connected through the elastic ring to the end ribs of the radial webs of the support element, since it would be within the knowledge of a person skilled in the art to modify the invention shown in figure 3 of Muller et al. to include the elastic ring and end ribs

taught by Murakami et al. and Blanchard et al. and were known at the at the time the invention was made to make the configuration of the claimed invention.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al., Sesselmann et al., and Blanchard et al. as applied to claim 1 above, and further in view of Bustamante et al. (US Patent No.: 5982058).

For claim 13, the inventions of Muller et al., Sesselmann et al., and Blanchard et al. disclose the claimed invention except for the motor shaft being connected to the rotor discs located adjacent to two end faces of a stator.

Bustamante et al. discloses shaft (reference numeral 52, see figure 2) connected to rotor discs (reference numerals 30, 38), which are on opposite faces of the stator (reference numeral 40).

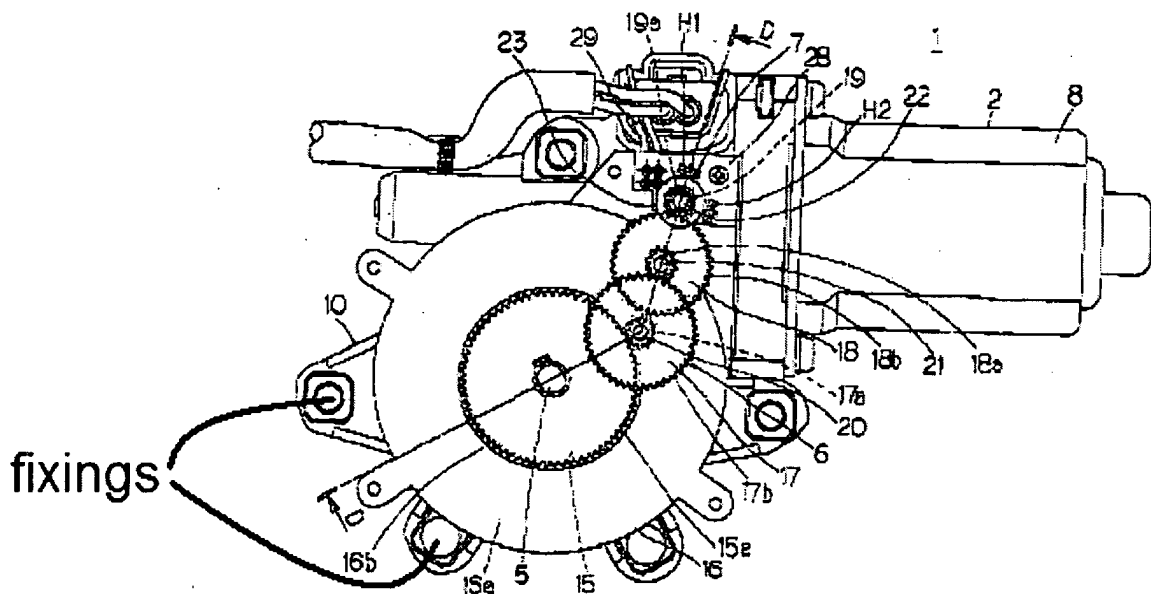
It would have been obvious to have the motor shaft connected to the rotor discs and have them located adjacent to opposite faces of the stator, since Bustamante et al. uses this technique for an axial field motor (see figure 2), and a person of ordinary skill in the art at the time the invention was made could use this configuration of Bustamante et al. and have the stator comprise the support element to create the axial field motor of the claimed invention.

8. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al., Sesselmann et al., and Blanchard et al. as applied to claim 14 above, and further in view of Niki et al. (Japanese Patent Document No.: JP 2001069722 A).

For claim 15, it would have been obvious to have the gear wheels mesh with the pinion and connected coaxially to a second pinion of a second gear stage which meshes with a second gear wheel, since the motor taught by Niki et al. illustrates this limitation in figure 1, and a person of ordinary skill in the art could have used this configuration in the inventions of Muller et al., Sesselmann et al., and Blanchard et al. for producing the gear structure of the claimed invention.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muller et al., Sesselmann et al., Blanchard et al., and Murakami et al. as applied to claim 16 above, and further in view of Niki et al. (Japanese Patent Document No.: JP 2001069722 A).

For claim 17, Niki et al. illustrates fixings which can be used to connect the drive device to a holding device (see figure below).



It would have been obvious to include the fixings on the twin shell housing holding the elastic ring, since the fixings of Niki et al. is used for a drive device (see translation, Technical Field), the same technological field as the claimed invention.

Response to Arguments

10. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection. The limitation in amended claim 1 stating the radial webs being "spaced apart at the outer circumference of the support element" is taught by the reference of Blanchard et al. as explained above in this action.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Application/Control Number:
10/533,856
Art Unit: 2834

Page 11

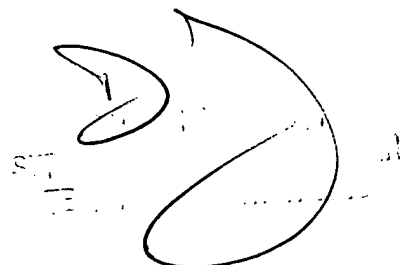
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex W. Mok whose telephone number is (571) 272-9084. The examiner can normally be reached on 7:30-5:00 Eastern Time, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren E. Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alex W. Mok
Examiner
Art Unit 2834

AM

A handwritten signature in black ink, appearing to be 'Alex W. Mok', with a large, sweeping loop at the end.